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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,607	07/24/2002	Susan Joy Cooper	JMYT-252US	5114

7590 04/19/2007  
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EXAMINER
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MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/018,607

Applicant(s)

COOPER ET AL.

Examiner

Julian Mercado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 53-80 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 53-80 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 23, 2007 has been entered.

Claims 1-52 have been canceled. New claims 53-80 are pending for consideration.

### ***Claim Objections***

Claims 53 and 67 are objected to because of the following informalities:

1. In claim 53 at line 3, it is suggested to change "embedded with" to --embedded within— such as disclosed on page 7 line 6 of the specification.
2. In claim 53 at line 6, it is suggested to change "of a combination thereof" to --or a combination thereof--.
3. In claim 67 at line 6, it is suggested to change "of a combination thereof" to --or a combination thereof--.
4. In claim 53 at line 14, it is suggested to change "carbon support; a carbon or an organic complex" to --carbon support, or an organic complex--.
5. In claim 67 at line 14, it is suggested to change "carbon support; a carbon or an organic complex" to --carbon support, or an organic complex--.

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6. In claim 67 at line 3, it is suggested to change "first catalytic component" to --a first catalytic component--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 53-80 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 53 recites the limitation "the metal or metal oxide" in lines 12-13. There is insufficient antecedent basis for this limitation in the claim.

Claim 67 recites the limitation "the metal or metal oxide" in lines 12-13. There is insufficient antecedent basis for this limitation in the claim.

Claims 54-66 and 68-80 are rejected under 35 U.S.C. 112, second paragraph, as being being dependent upon a rejected base claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 67-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkinson et al. (EP 0 736 921 A1) in view of Petrow et al. (U.S. Pat. 3,992,512).

The rejection based on Wilkinson et al. and Petrow et al. is maintained for the reasons of record. Focusing on the preamble and clauses (i) and (ii) of newly submitted claim 67, this portion of the claim appears to be modeled from prior claims 1 and 2. Focusing on clause (iii) of the claim, this portion of the claim appears to be modeled from prior claims 15-17. The newly submitted dependent claims appear to be identical to claims which have been previously considered as follows: claim 68 appears to be modeled after claim 4, claim 69 appears to be modeled after claim 5, claim 70 appears to be modeled after claim 6, claim 71 appears to be modeled after claim 18, claim 72 appears to be modeled after claim 7, claim 73 appears to be modeled after claim 10, claim 74 appears to be modeled after claim 8, claim 75 appears to be modeled after claim 9, claim 76 appears to be modeled after claim 19, claim 77 appears to be modeled after claim 21, claim 78 appears to be modeled after claim 23, claim 79 appears to be modeled after claim 24 and claim 80 appears to be modeled after claim 25.

Accordingly, the rejection of newly submitted claims 67-80 are maintained for the reasons of record insofar as these claims appear to recite the same limitations as prior claims 1, 2, 4-10, 15-17, 19, 21, 23, 24 and 25 in the manner outlined in the immediately preceding paragraph.

Applicant's arguments filed with the present amendment have been fully considered, however they are not found persuasive. Applicant submits that Petrow et al. would only motivate the skilled artisan to select the particular form of platinum and not necessarily follow

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what is otherwise disclosed in col. 1 lines 47-49, i.e. “[s]till another object is to provide novel catalytic structures to which such finely deposited platinum particles are adsorbed and adhered.” This argument is not persuasive. The examiner maintains, as in the prior Advisory action, that selection of the particular form of platinum is only required when the substrate is carbon, and when the substrate is alumina, as claimed and as similarly disclosed by Petrow et al., the examiner maintains that the skilled artisan would be “concerned with deposition or adhering to a refractory non-conductive substrate of alumina.” See Petrow et al. in col. 5 lines 54-54. The examiner maintains, as in the prior Advisory action, that the skilled artisan certainly cannot be concerned with the step of deposition as specifically taught by Petrow et al. without also being concerned with the type of substrate being deposited on.

As to there being no specific motivation to link a gas phase catalyst with the electrically non-conducting support, this argument is not persuasive as the catalyst in Petrow et al. is specifically disclosed as a “significantly improved oxidation catalyst..” See col. 5 line 64 et seq. As maintained in the prior Advisory action, this catalyst appears to be no different than that disclosed by applicant’s specification on page 5, which discloses a gas phase catalyst with the ability to selectively “oxidise CO even in the presence of oxygen.” It is clear from the respective disclosures that both Petrow et al. and applicant’s subject invention are drawn to gas phase oxidation catalysts.

The assertion that “[t]here is no direct comparison as to how the platinum sulfite acid complex catalyst on carbon compares to the platinum sulfite acid complex catalyst on alumina” has been fully considered but is not found persuasive. (emphasis as submitted) Applicant’s argument is premised on the platinum catalyst on either a carbon support or an

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alumina support being interchangeable. This is not the case. In a manner not unlike applicant's disclosure, the former is an electrocatalyst, while the latter is a gas phase catalyst, which provides "a significantly improved oxidation catalyst...." See col. 5 line 64 et seq. Taking the prior art disclosures of Petrow et al. and Wilkinson et al. as a whole, the disclosure of Petrow et al. drawn to catalysts on carbon supports *supplements* Wilkinson et al.'s teachings of the same rather than teaching away from it.

***Allowable Subject Matter***

Claims 53-66 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: the prior art of record does not teach or suggest the instant invention regarding a first gas-phase catalyst embedded within an electrically conducting porous structure and directly supported on an electrically non-conducting support. In Petrow et al., the platinum particles, while distributed throughout the alumina surface, are "not within the same." (col. 5 lines 61-64)

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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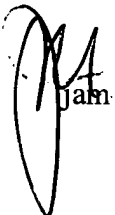
***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

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STEPHEN KALAFUT  
PRIMARY EXAMINER  
GROUP 1700